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THESES SUMMARY

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THE ROLE OF INTANGIBLE ASSETS IN THE BANKING VALUE CREATION PROCESS

KNOWLEDGE MANAGEMENT APPROACH

Ph.D. dissertation summary

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I. Introduction of the research topic

As the knowledge-based economy gained ground know-how and intellectual capital increasingly became the basis of competitiveness instead of tangible resources [Thurow, 1996]. Despite this, we can encounter several questions of cardinal importance in the field of intellectual capital management, responding to which would considerably assist managers in operating corporate processes in an optimal manner. For this reason, these questions examined by the domains of knowledge management (henceforth: KM) and intellectual capital management have grown in prominence in the professional and scientific communities.

I would like to highlight the doctoral dissertations of Péter Juhász [2004] and György Boda [2005]. In my opinion these two dissertations significantly raised awareness of this research area in the Hungarian scientific community. For this reason, my current doctoral thesis aims to strengthen these professional and scientific foundations and aims to reflect further upon their findings wherever possible. Juhász [2004] explores the reason for the difference between the market and the book values through company valuation methods and accounting adjustments. He has uncovered the possible sources of corporate added value by empirical examination of the role of off balance sheet items. Boda [2005] reflects further on the measuring and valuation dilemmas not handled by the traditional financial and accounting system and discusses these questions. However based on Sveiby [1986], Boda has also empirically confirmed that with the emergence of knowledge-based organizations, the structure of the corporate balance sheet changes and new intangible assets are the drivers of corporate value creation processes. In addition, he has proved its effect on knowledge capital strategy and corporate value through his own corporate analyses.

After studying through these fundamental works and other pieces of scientific literature discussed in the dissertation, I have identified the focal points of the scientific literature on the management of intangible factors of production in the present state of scientific knowledge:

1. **Asset focus.** By this I am referring to the fact that previous researches examined intangible factors as assets, and in several cases did not make corresponding conclusions on the liabilities side, namely indicating whom the asset belongs to. In absence of this the logic of the balance sheet is not respected and it is not possible to arrive at satisfactory conclusions regarding the behaviour of the assets, as their ownership is still unclear.
2. **Added value focus,** indicating that those who have explored the topic have confirmed that the gap between the value in the accounting information system and the real market value keeps increasing. This difference can be interpreted as a type of added value, and discussing its composition and management can only be done with significant limitations and at a high level of uncertainty. Consequently, the examination of the components constituting corporate added value has not yet gained prominence in the form of unique and focused contributions in the area of intellectual capital management.
3. **Registry focus:** In scientific literature a debate has been going on for several years about what is the solution for handling the gap found between the book value and the

market value. According to one point of view, the conservative set of rules governing accounting should be renewed and expanded with methods, which would enable the identification and the registry of the real value of off balance items. However, according to the other point of view, the accounting information system still satisfies all the requirements for which it was initially created. Upon its conception the evaluation of assets was not a critical requirement, for this reason there is no point in adjusting the system with measuring and evaluating rules based on company valuation and financial considerations, since this is classically not a bookkeeping task.

4. **Value creation focus.** Currently the negative effects of knowledge management are little discussed, which are due to the overuse of knowledge, its unidentifiable nature or even the more difficult manageability of intangible assets. However these factors are real risks of strategic significance for the given company, therefore if these risks occur organizational value creation may turn into value destruction.

The above outlined main focal points constitute the target of research in this scientific realm. Naturally, these present countless smaller and larger research questions. Among these I am endeavouring to examine the following research areas in my dissertation:

1. **Liabilities focus.** Over the course of the research I am dedicating significant attention to clarifying the right of ownership of intangible assets, as I believe nobody questions the logic of the balance sheet neither in the scientific, nor in the professional community, yet the origin of intangible assets is less clear than the origin of tangible assets.
2. **Process focus.** Methodologies have been conceived which provide an approximation of the existence of intangible factors of production, however analyses which demonstrate the intangible asset demand of each main business process, at the level of the process itself, have not yet been prepared to the best of my knowledge.
3. **Risk focus.** With the purpose of triggering a debate I would like to flag the dangers in the idea of "*the more knowledge, the better*". In my research I am revealing for what purposes companies use intangible assets, as well as what kind of risks these assets mean for the owners.

My purpose is to achieve a scientifically sound contribution by examining these focus areas, which would enable a deeper understanding of the above mentioned topics and their embedding into the business mindset. In light of the above, this dissertation aims to explore the operating mechanisms of intangible factors of production in the banking processes. The research focuses on how intellectual capital management can be identified in the daily operation of the banking value chain.

The dissertation does not wish to upset the principles of the accounting system or to question its necessity. The purpose of the dissertation is to show a more nuanced, closer to reality picture of the operations of knowledge-based companies stepping beyond the common interpretation framework, while accepting and respecting the set of rules and methods of accounting. The goal is to interpret the operations and manageability of these organizations in real market circumstances, by placing intangible assets at the focus of the examination.

In order to achieve these research objectives I am examining the relationship of the different banking processes with the intangible assets from the process perspective, with the help of the banking value chain. As a consequence the comprehensive research question is: How can the role of intangible assets in value creation be captured in the Hungarian banking practice?

II. Research methodology

In regard to the research methodology, my PhD dissertation is qualified as a primary, qualitative research, which can be divided into two sections, with one based on the other. The first section is a preparatory phase, whereby based on semi-structured interviews I constructed the structure and content of the research survey to be used during the later interview phase. In this phase of the research, I consulted with several senior bank managers, financial market consultants and financial professionals about the content of the research model, as well as about the objective function used in the research. This was followed by the second phase, where I collected the information by means of structured face-to-face or telephone interviews. Subsequently, I summarized the data and carried out the analysis needed to draw the conclusions.

Summarizing the above discussed information, it can be concluded that on the basis of the balance sheet total, the research explored the opinion of 77% of the Hungarian banking sector by means of the 50 structured interviews. This survey was preceded by a preparatory and model validation phase consisting of 12 semi-structured interviews, and a trial interview phase consisting of 5 interviews. The sample size of 50 reached during the research in fact indicates a theoretical level of saturation.

Research question #1: To what extent do main banking processes rely on intangible assets?

P1: Among the main banking processes, the business processes rely on intangible assets to the greatest extent.

P2: Among the main banking processes, the support activities rely on intangible assets to the smallest extent.

Research question #2: What is the intangible asset demand of different main banking processes?

P3: The factors of production related to organizational assets represent the largest segment of the intangible asset demand of main banking processes.

P4: The factors of production related to relationship assets represent the smallest segment of the intangible asset demand of main banking processes.

Research question #3: What characterizes the means of application of intangible assets in the main banking processes?

P5: Hungarian banks rather use intangible relationship assets for operational purposes.

P6: Hungarian banks rather use intangible organizational assets for operational purposes.

P7: Hungarian banks rather use intangible assets related to competence for development purposes.

Research question #4: With regard to the right of ownership of intangible assets, what ownership structure is characteristic in the Hungarian banking practice?

P8: The intangible assets related to relationships are rather in the ownership of the company, thus from the perspective of the company they qualify as intangible equity.

P9: The intangible assets related to organizational capital are rather in the ownership of the company, thus from the perspective of the company they qualify as intangible equity.

P10: The intangible assets related to competence are rather in the ownership of the employee, thus from the perspective of the company they qualify as external capital.

P11: The balance sheet structure created through the banking value creation process contains serious intangible risks, which can mainly be traced back to the fact that a part of the intangible assets, which are indispensable for performing the core activity, are in fact not in the ownership of the company.

Over the course of the research, I am searching for the answers to these questions, by examining the validity of the above propositions.

III. Summary of empirical results

1. New chapter in capital management

Capital management is one of the key leadership activities. Capital cannot be confused with physical pieces of property, it instead represents such a right of use, which produces earnings [Fetter, 1927, p. 156]. In the next era Schumpeter's [1989] approach of the definition of capital was that capital is a factor of increasing relevance, which is controlled by dominant economic players. Today the reflection about capital, the definition of the concept of capital has reached the point, where capital encompasses intangible capital, just like tangible forms. In the focus of mainstream management approaches we still find the management of material resources which are easy to quantify, measure and historically analyze. The complete, real value creation of companies takes place through mainly intangible processes, relying on intangible assets, thus creating considerable intangible company value. The management of intangible capital is in fact the conscious extension of management activities to intangible capital. To be more precise, on those intangible factors of production, which participate in corporate value creation in a manner that is not formalized by accounting. Moreover as Penrose [1959] stated, a company does not achieve economic earnings, because it has better resources, but because it has such capabilities, through which it can use resources more

efficiently. These intangible forms of capital are principally constituted of human inputs [Eisfeldt - Papanikolaou, 2014]), for this reason a considerable part of intangible capital items cannot be separated from its carrier [Boda, 2010]. The fundamental goal of intangible capital management is to apply these intangible assets, which have particular characteristics and are difficult to formalize, in the most efficient and effective manner possible.

Accordingly, this research has proved that the intangible factors of production have an inevitable role in banking operations. The study furthermore highlighted that the top managers of banks are aware of this factors and acknowledge its contribution to the value creation but do not handle these factors as conscious as the material ones. The reason for that is the separation of material and intangible factors has not happened yet as regard of asset management. It was managed as an aggregation of production factors what not allowed to achieve economic optimum.

2. New conceptual framework

In the present state of science, countless overworked or misinterpreted terms are in use in the realm of knowledge management. In this research it was also my goal to rectify this terminology, in order for the terms to be used more clearly in the future.

Clarifying this conceptual framework makes it possible to draw up the real and comprehensive balance sheet structure of a company. However as a first step, the relationship between these terms has to be established. The followings axioms can be stated:

Intangible asset = human asset + intangible corporate asset

Intangible capital = intangible external capital + intangible equity

Real corporate asset = tangible asset + intangible asset

Real corporate capital = tangible capital + intangible capital

The interdependencies are represented in the below figure:

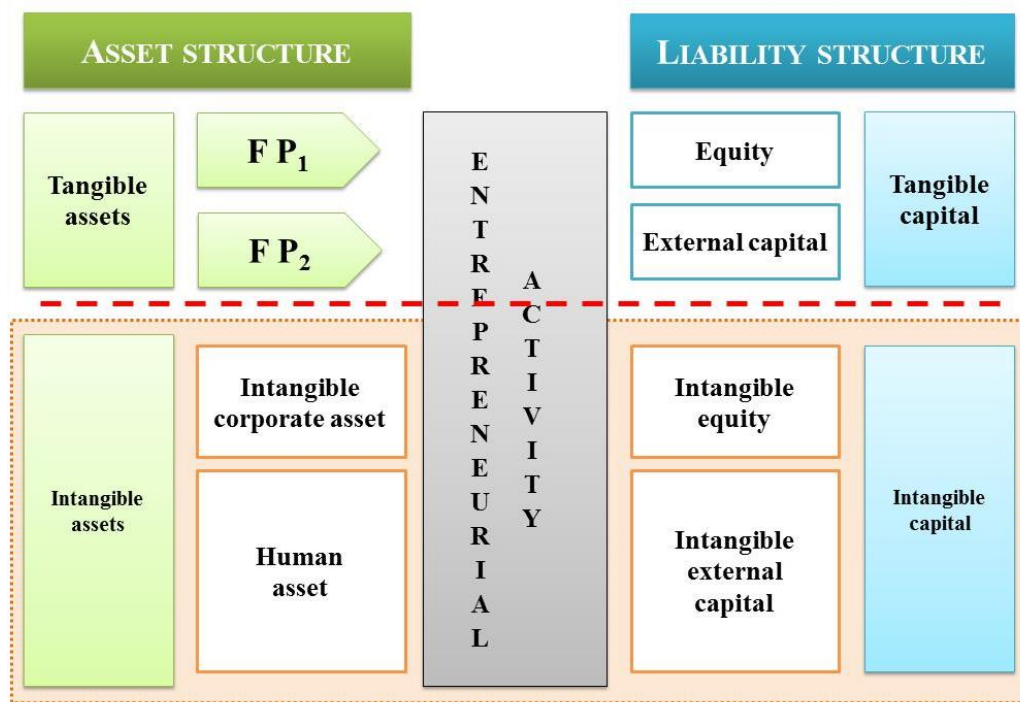


FIGURE 1.: THE REAL BALANCE SHEET STRUCTURE OF THE COMPANY

Several concepts can be found in scientific literature and in everyday language for presenting items below the balance sheet, designing new balance sheet concepts, however this approach deduces the real balance sheet structure from a different perspective. This extended balance sheet aims to demonstrate the real assets and liabilities of companies, phrasing it differently, the entire range of factors of production. This theoretical framework allows me to situate the research findings in a unified logical context, while it can also serve as guidance for company leaders and researchers who are interested in this topic and would like to approach this area with the aim of gaining deeper understanding of it.

3. The holistic approach of the knowledge management system

Scientific literature extensively discusses the topics of the objectives of the knowledge organization, knowledge management strategy, the process of knowledge conversion, the elements and the process models of the knowledge management system, but the context of interdependencies between these concepts, and joining them with the purpose of value creation is less explored. In my dissertation, by synthesizing the conclusions of the reviewed Hungarian and international scientific literature and researches, I have designed a knowledge management system, which organizes the system of knowledge management by also taking into account the existence of intangible assets.

The model strongly focuses on profit generation, because ultimately the principle benefit of the entire knowledge management realm is profit. The primary objective of any business management system, in this case the knowledge management system, is to enhance financial

performance and increase financial returns. When examining knowledge management systems or preparing strategy, many have a tendency to forget to consider knowledge as a resource, and the money invested in knowledge as a capital investment, therefore expectations need to be expressed in terms of financial returns. Regardless of the fact that the value created by the use of certain resources cannot be always quantified, these still contribute to increasing the overall corporate value, thus they must be considered as real value-creating factors.

From the systematic cyclical process I have presented, it can be concluded that operating a knowledge management system has three fundamental goals:

1. Optimize the extent of usage of knowledge-based factors of production (not too much, not too little).
2. Increase the possible return on the company's knowledge capital.
3. Reduce the risk of knowledge capital management, by consciously converting individual knowledge assets into corporate equity.

My research therefore emphasizes, that increasing the corporate value, and within that the value of the intangible wealth, depends not only on increasing each intangible asset, but also on consciously connecting and operating factors of production.

4. More is not always better

Speaking of knowledge management, management literature mostly provides the example of the state, when the available level of knowledge at the company is lower than the expected level of knowledge. Actually a void is formed between knowledge levels, which results in a state of deficiency. In this case, all knowledge management actions aim to determine how to fill this void, and to raise the knowledge level to the adequate level. The reverse of this situation is less discussed, namely knowledge spillover. In this case, more knowledge is available than the knowledge level needed to perform the firms' activities. Economically, this is clearly not at all an optimal equilibrium, as knowledge is in fact wasted in corporate processes, they occupy unnecessary resources which do not generate added value. Depending on the degree of knowledge excess, we can speak of a possible safety margin or temporary sub-optimal operation, when the real knowledge level slightly over the expected knowledge level. In the case, when the excess generates a considerable additional financial burden for the company without being able to compensate for it with added value creation, then the situation can truly be considered as value destruction.

The principle of the efficient management of knowledge refers back to matching the asset combinations to the given task. In addition, it highlights that knowledge management action is required from the leadership not only to close the knowledge gap, but in many cases to eliminate knowledge surplus.

To summarize, it can be stated, that the tools used of efficient knowledge management can be calibrated by responding to three fundamental questions:

1. Do we know exactly what kind of factors impact the performance/the output?
2. Along which processes are the factors used in production/the service linked to value creation?
3. What is the optimal degree of factor allocation in the case of each process?

The present research provides exact answers to the first two questions, therefore I hope I have contributed to designing more efficient knowledge management systems for banks. In addition, I trust that the general methodology can serve as a professional guideline for other industries, in how it is worthwhile to consciously execute the management of intellectual assets. By responding to these questions a company comes closer to real problem-solving, since it can manage those assets which have an impact on performance, and is able to influence them in order to shift factor allocation towards the optimum. Considering that a company cannot be efficient without intangible assets, and intangible assets cannot belong exclusively to the company, the firm is dependent of the environment, from where the intangible capital originates.

Therefore my research highlights, that increasing the value of the company and within in it the value of intangible wealth is not only a function of increasing the amount each intangible asset. Consciously connecting factors of production, as well as applying them in the company's processes is just as essential.

5. Banking value chain model

Every factor of production has its own efficiency, by which it increases output, as well as a contribution to increasing the joint efficiency of factors [Boda, 2010]. Until we identify exactly which factors of production participate in corporate value creation, we cannot manage the efficiency of these resources. One of the most important contributions of my research is designing the banking value chain, which characterizes the fundamental value creation logic of the Hungarian banking industry. This model presents the value creating connections between the different banking functions in the process perspective. It is important to determine what processes take place in an organization, since unless these are identified, there is no chance of attributing the assets to value creation processes. This is a critical step, because intangible assets generate revenue through other material assets, or jointly with other intangible assets [Basu - Waymire, 2008]. The basis of the revenue generation is however the value creation process, in which both tangible and intangible factors of production are involved. In order to be able to manage resources at the highest level possible, their operating mechanisms must be understood as thoroughly as possible. The contribution of the banking value creation model is that it highlights how special industries may have value creation particularities, and by considering these the purpose of the core activity can be better understood, and the management of the resources can be optimized.

6. Management of intangible risks

Standfield [2002] goes all the way to claiming, that besides the returns of financial investment all profit must be associated with human resources. On the contrary, Barker [2001], Péne [1979] and Juhász [2004] suggest that employees cannot be considered as company assets, since the firm does not fully control them, as they have the right to leave at any time. This clearly demonstrates that the topic has been at the centre of reflection and scientific discussion for several decades. My research proved that employees can in fact be managed as human assets, with the condition, that they be considered as intangible external capital from the perspective of the company.

Research on the intellectual balance sheet items belonging to the asset side is at a much more advanced stage, than the identification, measurement and management of intellectual liabilities. Intellectual liabilities are not identified in the financial statements, but do in fact decrease corporate value [De Santis - Giuliani, 2013]. The reason, why companies prefer to

manage financial risks is, because they already have extensive experience in this and can approach the problems with quantitative methodologies. Research has shown that managers can only clearly distinguish a few risks associated to intellectual capital, such as workforce turnover or non-documented knowledge [Brunold - Durst, 2012].

This is an important topic, because the occurrence of intangible risks in fact leads to value destruction, unless they can be managed properly. Quantifying these risks is not a simple task, but this is not the first step. Instead, the first step is to identify those assets which participate in corporate value creation, while at the same time they represent an operational risk for the firm. This is the reason why it is of critical importance to examine the intangible liabilities side of the balance sheet, distinguishing alienable and inalienable factors of production, as well as determining their ratio and their relation. This ownership problem can be traced back to the fact, that companies do not know who owns the intangible resources. In turn, this represents a risk of strategic importance, because the knowledge, business sense and relationships of employees are only available to the company until this cooperation is mutually beneficial for both parties.

The existence of the risks is not a value destructive event in itself. Value destruction happens if the company, the individual, the organization cannot manage the given risk. In the case where the risk occurs and then is eliminated, intangible value is in fact generated. This is actually the value of the company's risk management and problem-solving capability. If a company has crisis management potential and risk management capability, as responding to such operational disruptions increases the company's value, since it indicates the presence of an intangible asset, namely the crisis management capability. This factor does not exist in every company, competitor or partner, therefore it represents value, moreover added value to the given company.

My research has highlighted, that companies ought to worry most about the right of ownership of intangible assets belonging to the *competence asset group*, since this contains resources which are rather owned by the employees. The company only has temporary and limited control over these human originated resources. This exposure itself embodies the intangible risk. The present research also highlighted to what extent different main banking processes rely on for example *competence type assets*. As a result it becomes possible for managers and owners to calibrate the risk level of different assets, and that of different processes. I believe that extending risk management to the intangible level is such a novelty, which also simultaneously has practical benefits.

7. Estimation of the organization's innovation activity

The research has demonstrated the intensity of the contribution each intangible asset makes to the innovation activity of banks. The results have highlighted that the assets which drive innovativeness the most are in fact not in the ownership of the company. This is an exposed, one-sided relationship, which further increases the risk level of the company. By interpreting the research results, a relation has been established, whereby for a high level of knowledge capital is needed for the development of processes and activities, while this is less required for operating the processes and activities. In the latter case, organizational assets dominate instead. This finding indicates that the company is less capable of innovating on its own, relying only on its own corporate assets, because innovative potential and capability are rooted in those intangible assets (human competence), which do not constitute part of the company's assets.

The study has shown an overall picture of where one should search for the source of innovation in today's Hungarian banking industry. Which are the resources, which leaders apply in value creation in order to create something new, better, different, and not to operate an existing system. From this approach however the result is telling, since it highlights the situation, whereby banks maintain operations from intangible equity (organization, relationships), while development is based on intangible external capital (competence). If the right of ownership of intangible assets is structured as previously discussed (see next sub-chapter), then it is proven, that the innovation activity of banks is a high risk process, since it is carried out by intangible assets over which banks do not have ownership.

8. Methodological findings

One of the main methodological findings of my research belongs in the area of financial management. More precisely, it aims to contribute to the realm of corporate valuation. It has become possible to gain deeper understanding of certain parts of intangible wealth items through the logic of the research model and its results. One of the objectives of my research was to better understand the partial contribution of intangible assets to company value. In this case, this meant a further breakdown of the balance sheet items of the corporate added value, in fact dividing it according to asset groups. As stated, the corporate added value can be deduced from the difference between the market value and the book value. This corporate added value encompasses several value parameters. Among the components constituting the added value, this research is aimed at examining the intangible effects. As discussed in the previous chapter, the respondents determined for each main banking process the demand for each intangible asset type in the three different asset groups. Accordingly, the *Competence* asset group represents a proportion of 37% in corporate intangible value creation, considering all processes, while the *Organization* asset group takes 36% and the *Relationship* one has 27%. These three numbers add up to the entire intangible capital value which is not recognized on the balance sheet, and indicate its distribution by asset groups.

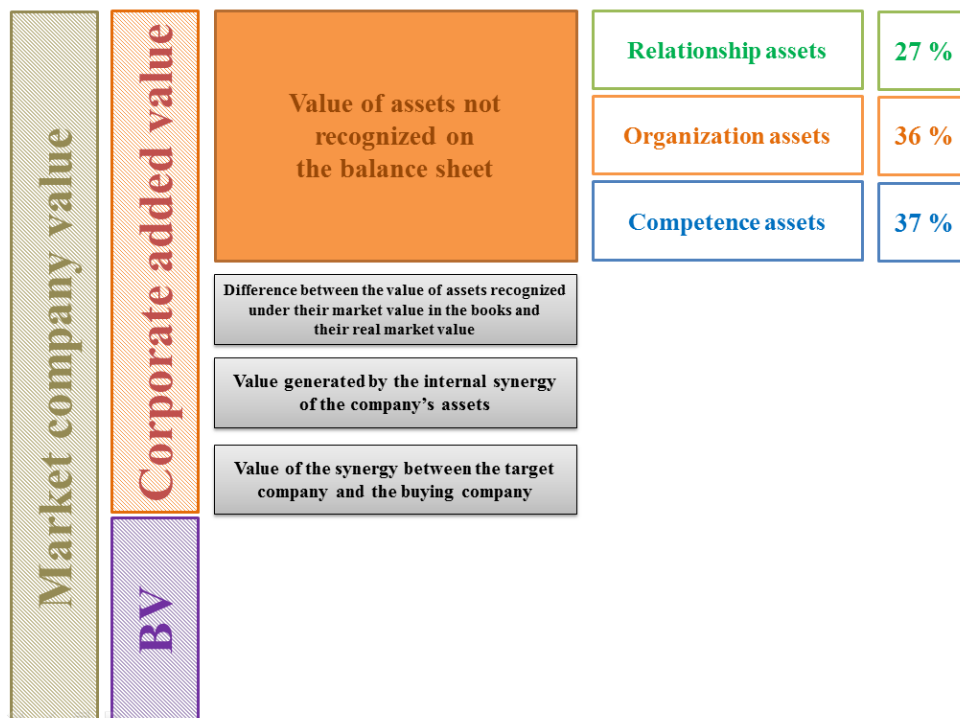


FIGURE 2.: INTANGIBLE ADDED VALUE

From the point of view of methodology, this approach means that we are able to quantify the value of intangible assets applied in banking value creation. This is an important financial step, because:

1. An intangible resource composition is outlined, which has not been formalized, nor presented before, therefore it was not possible to explicitly express neither the different asset groups, nor their relations to other assets, which meant that they were more difficult to manage.
2. In the transactional scenario, when a merger or an acquisition is taking place, the value-generating parameters which constitute the company's total market value can be clearly visualized. Consequently, it becomes possible to determine, whether the buying company needs the target company's organization capital, or it has its own well-established business processes, and truly only wants to acquire the customer base and the human capital. In the latter case there is a possibility to precisely calculate the value of the organizational capital, and reduce the company value by it, in turn reducing the overall cost of the transaction,
3. It can be quantified, what proportion of corporate added value can be traced back to the flaws of asset valuation (registry effect), and what part is due to existing intangible resources, which are applied in production, but have in no way been recognized in the financial statements. This can be further refined to reflect the internal synergy of company resources, or in a transactional situation the synergy effects which can be found between the resources of the target company and the buying company, however this is a separate topic, which is outside of the research scope.
4. From the perspective of resource optimization, if processes are managed through this system of logic, then each considerable change, intervention or development in the processes or in the associated factors of production directly impacts the corporate value. With this approach this change in value can be continuously tracked, and by definition the effect of specific actions can be confirmed.

The principle benefit of identifying and recognizing the intangible asset is that it increases the transparency of company operations, by reducing information asymmetry between the presumed and the real value parameters.

9. Balance sheet structure extended with intangible risks

Before discussing the risk level of intangible assets, let us examine what risks must be considered in the case of material resources. The operational risks related to the assets represented in the accounting information system can be divided into two main groups of risk. These two categories, which define a company's basic level of risk, are the costs associated with the assets, and the liability represented by the source of financing of production assets. Firstly, let us consider the costs. Every asset has a cost at which it is carried in the balance sheet, it may have an amortisation cost, maintenance cost, operational cost etc. The occurrence of the risk depends on whether a factor of production (asset) generates more

benefit during its entire useful economic life, than the costs associated to it. The way the productivity and the costs of assets compare fundamentally impacts the efficiency and the effectiveness of a company. The incorrect estimation of these ratios leads to inefficient management of the assets, and therefore value destruction. This itself is the risk.

Moving on to the other fundamental factor of risk, the liability, it is worthwhile to consider, what is the source of financing of a given asset and how it is financed. A company's financing structure determines its capital structure, from which conclusions can be drawn regarding the given company's funding risks. For example, if there is a considerable amount of external liability in a company's balance sheet, say in the form of loans, this increases the company's risk level, since it has a serious exposure towards the funding party, due to the fact that a regular debt service needs to be paid. Consequently, the free cash flow decreases and the risk of insolvency may rise.

To summarize, it can be established, that a company's risk level principally depends on what assets it applies in the production / service, at what costs these are operated, and from what source of they are financed?

In our case however, we are focusing on intangible assets. In fact, the situation is very similar in the intangible case as well, since these invisible resources have a level of costs, these costs have a source of financing (which is a liability for the company) and so on. There is one dominant difference between examining tangible and intangible assets from a risk perspective. This in fact is the question of ownership, and the extent of risks caused by it. To elaborate, while in the case of recognized balance sheet items, it can be clearly and formally determined, in whose ownership a given asset is, in the intangible case this is less self-explanatory. Despite the fact, that the right of ownership of intangible resources is in many cases unclarified, they cannot at all be neglected from the point of view of risk management. The below figure presents the risk categories and levels associated to items below the balance sheet, from the perspective of right of ownership.

	Assets	Liabilities	Risk level
Tangible factors of production	Current assets Fixed asset	Equity External capital	<i>Factors of production operating at a known risk level</i>
Intangible factors of production	Relationship Customer relationships (B2C) Partner network (B2B) Government relations (B2A) Civil relations (B2NGO) Stockholder connections Organization Degree of organization of work Degree of regulation of work Organizational behaviour Organizational particularities Competence Expertise Work experience Emotional intelligence Motivation	Intangible equity Alienated intangible capital <i>(already part of equity)</i> Not alienated intangible capital <i>(still part of external capital)</i> Intangible external capital	Factors of production of moderate risk Risky factors of production Factors of production of above average risk Factors of production of high risk

FIGURE 3.: INTANGIBLE RISKS IN THE BALANCE SHEET

The interpretation of the figure is the following. Firstly, there are the assets and their liabilities, which are traditionally recognized by accounting, together I designated these with the term tangible factors of production. If we step beyond the interpretive context of asset items registered by accounting, then the balance sheet can be extended with the intangible factors of production. These are arranged in three main groups: relationship, organization and competence. While in the case of tangible factors of production it can be easily and unequivocally determined, who is the owner of a given asset, who possesses the resource, in the case of intangible factors the situation is much more nuanced, since there are not only the categories of equity and external capital, but others as well. My research has highlighted, that when discussing intangible capital management, two further capital categories must be taken into account. These two categories are:

- **Alienated intangible capital:** the totality of those factors of production, which were originally not owned by the company, but the firm has succeeded with a series of targeted actions, to bring the given resource under its ownership (incorporation).
- **Not alienated intangible capital:** the totality of those factors of production, which are not in the ownership of the company, but there is a theoretical possibility of reclassifying a part of them into equity, through the execution of certain actions.

Why is it important to distinguish intangible capital categories in this manner? Essentially because in the case of factors of production lacking physical substance, the much discussed question of ownership - alienability arises, whereby it is a serious risk for the company, if it does not clearly know who owns the resources involved in value creation. This realization brought to life the above mentioned two intangible capital categories, since it is the fundamental intention of the company, to minimize its tangible, as well as its intangible risks.

This is possible by identifying those intangible assets, which are not in the ownership of the company, it merely controls their use. From a risk consideration there are two such possible cases: (1) the given intangible factor of production was originally not in the ownership of the company, but is already in it now, (2) the given intangible factor of production was neither originally nor now under the ownership of the firm. This distinction is important, because the research has confirmed, that from management perspective these two cases indicate two different risk levels. In the case of alienated intangible capital there is an asset group within the equity, which was not always owned by the company, therefore it carries the risk, that just as the firm management to gain full control of these assets, someone else may succeed in doing the same. Leaders implement a protective management technique in this case, as they attempt to maintain the situation which is comfortable and optimal for them. The objective in this scenario is to maintain the status quo. In the case of not alienated intangible capital there is an asset group, which could perhaps be owned by the company as well, but is not under its ownership. From the point of view of the company, these assets are considered potentially alienable intangible factors of production. In this situation a proactive behaviour can be observed on the management side, since they are aiming to gain total control over these resources, with regard to both rights of use and right of ownership. In this scenario the objective is to change the status quo, reclassifying outside assets as the company's own assets.

My research has highlighted, that managers and owners in the Hungarian banking sector ought to dedicate particular attention to the intangible assets belonging to the *competence* asset group, because it contains resources owned rather by the employees. The company only has temporary and quite limited control over these assets. Moreover, the final results of the dissertation made a contribution, in helping managers with respect to where to search for intangible risks and with which management techniques to handle them.

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V. Connected own publications

	Year of publishing	Author(s)	Title of article	Journal	Additional information
1	2012 a	Gabor Porzse, Sandor Takacs, József Fejes , Zoltan Csedo, Zoltan Sara	Knowledge and innovation as value drivers in professional services firms: an empirical research in Central and Eastern Europe	European Journal of Business and Management	ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online), Vol 4, No.8, 2012
2	2012 b	Gabor Porzse, Sandor Takacs, Zoltan Csedo, Zoltan Berta, Zoltan Sara, József Fejes	The impact of creative organizational climate on the innovation activity of medical devices manufacturing firms in Hungary	European Journal of Business and Management	ISSN 2222-1905 (Paper) ISSN 2222-2839 (Online) Vol 4, No.13, 2012
3	2013	Zoltán Sára, Zoltán Csedó, József Fejes , Tamás Tóth, Gábor Pörzse	Innovation Management in Central and Eastern Europe: Technology Perspectives and EU Policy Implications	Journal of Economics and Sustainable Development	ISSN 2222-1700 (Paper) ISSN 2222-2855 (Online) Vol.4, No.4, 2013
4	2013	György Boda, Nataliia Stukalo, Iaroslava Stoliarchuk, József Fejes	Intellectual Capital Paradox: The case of Hungary and Ukraine	Developing Country Studies	ISSN 2224-607X (Paper) ISSN 2225-0565 (Online) Vol.3, No.8, 2013
5	2014	Krisztián Tibor Csubák, József Fejes	Bank financing of Hungarian SMEs: Getting over to credit crisis by state interventions	Research Journal of Finance and Accounting	ISSN 2222-1697 (Paper) ISSN 2222-2847 (Online) Vol.5, No.5, 2014
6	2014	Csubák Tibor Krisztián, Fejes József	A magyar kkv-k 21. századi banki finanszírozásának áttekintése és kiütkeresés a hitelválság csapdájából	Hitelintézeti Szemle	2014/13. évfolyan, pp. 174-194

7	2014	Sára Zoltán, Csedő Zoltán, Fejes József , Tóth Tamás, Pörzse Gábor	Innovációmenedzsment és innovációs stratégiák – a vállalati tudás szerepe az innovációs folyamatokban	Vezetéstudomány	XLV. ÉVF. 2014. 10. SZÁM / ISSN 0133-0179
8	2014	Fejes József	Gondolatok az innováció és a stratégia összefüggéseiről	Vezetéstudomány	XLV. ÉVF. 2014. 5. SZÁM / ISSN 0133-0179
9	2015 a	Fejes József	Innovációs kalandozások az elmélettől a stratégiáig	Vezetéstudomány	XLVI. ÉVF. 2015. 6. SZÁM / ISSN 0133-0179
10	2015 b	Fejes József	A tudásmenedzsment fejlődési szakaszainak tettevérese a magyar üzleti tanácsadás piacán	Vezetéstudomány	XLVI. ÉVF. 2015. 8. SZÁM / ISSN 0133-0179